

# Crystal Oscillators

## VCXO/SMD Clock Oscillator

### 27.000MHz/±110ppm/AS27000VCA

## ■ 特長

- 周波数可変範囲 : ±110ppm/V<sub>c</sub>=1.65V±1.65V
- 周波数安定度 : ±30ppm/-20~70°C, V<sub>dd</sub>=3.3V±5%
- 低消費電流 : 7mA/27MHz/3.3V
- 動作電圧範囲 : 3.3V±5%
- セラミックパッケージ (7×5×1.7mm)
- 出力デューティ : 45~55%/25°C

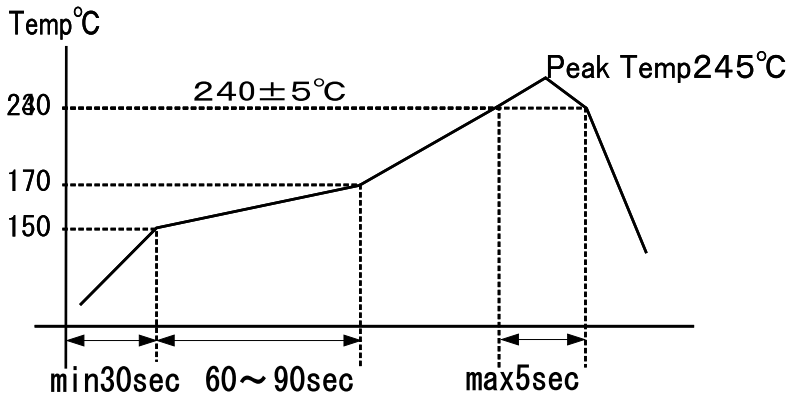
## ■ Features

- Frequency Deviation Range
- Frequency Stability: ±30ppm
- Low Power Consumption: 7mA/3.3V
- Operating Voltage: 3.3V±5%
- Ceramic Package (7×5×1.7mm)
- Output Duty: 45~55%/25°C

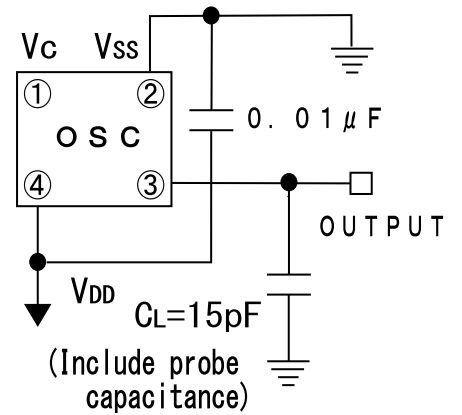
## ■ 電気的特性 Specifications

項目 ITEM	型名 TYPE	AS27000VCA
Output Frequency 出力周波数		27.000MHz
Frequency Deviation Range 周波数可変範囲		±110ppm min/V <sub>c</sub> =1.65V±1.65V
Frequency Stability 周波数安定度		±30ppm min/-20~+70°C/3.3V±5%(Initial Deviation at 25°C included, V <sub>c</sub> =1.65V, V <sub>dd</sub> =3.3V)
Frequency Stability/Power Supply Voltage 電源電圧周波数変動		±3.0ppm max/3.3V±5% (Reference at 25°C, V <sub>c</sub> =1.65V)
Frequency Tuning Voltage Range 公称周波数設定電圧偏差		V <sub>t</sub> =1.65±0.3V/V <sub>DD</sub> =3.3V/25±2°C
Operating Temperature Range 動作温度範囲		-20~+70°C
Storage Temperature Range 保存温度範囲		-40~+85°C
Power Supply Voltage 電源電圧		+3.3V±5%
Power Consumption(No Load) 消費電流 (無負荷)		typ: 7mA/3.3V, max: 9mA/3.3V
Output Symmetry 出力波形対称性		45% to 55% (at 1/2V <sub>DD</sub> )/3.3V/25°C
Rise Time/Fall Time 立ち上がり、立ち下がり時間		4.0nS max (0.3~3.0V)/4.0nS max (3.0~0.3V)
Output Load 出力負荷		15pF
Input Level 入力レベル		V <sub>IH</sub> : +3.0V min/V <sub>IL</sub> : +0.3V max
Output Level 出力レベル		V <sub>OH</sub> : +3.0V min/V <sub>OL</sub> : +0.3V max
Assembly Temperature Range 実装温度条件		Peak Temperature 240°C±5°C for 5seconds max. Maximum Temperature: 245°C

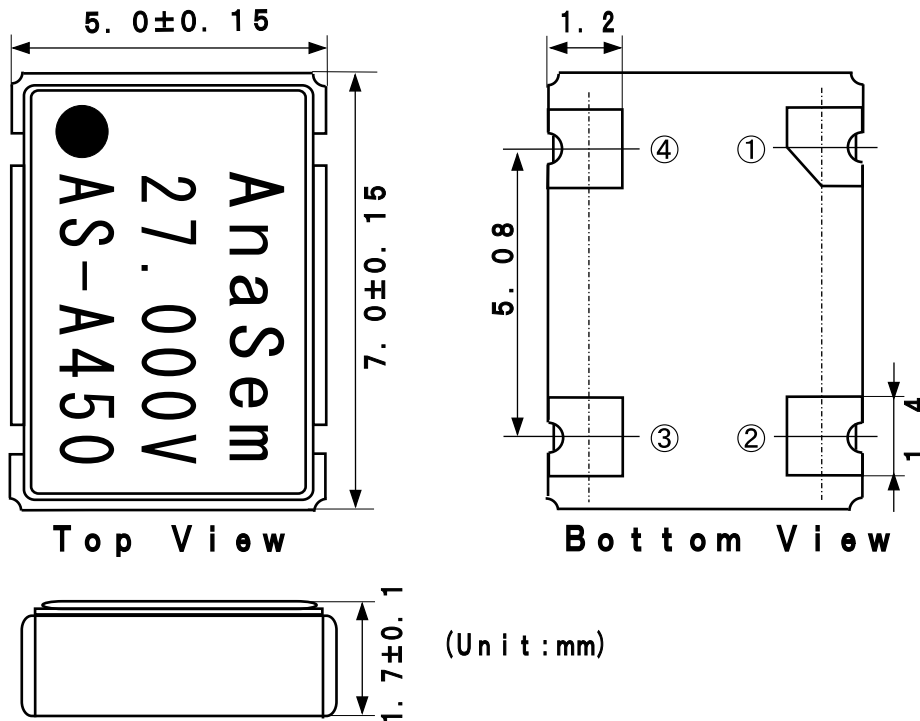
## ■ 推奨半田付け条件 / Recommended Reflow Soldering Condition



## ■ 測定回路 Measurement Circuit



## ■ 外形寸法 Dimensions



## ■ 接続端子 Pin Connections

①	V <sub>c</sub>
②	GND (V <sub>ss</sub> )
③	OUTPUT
④	+3.3V (V <sub>DD</sub> )

## ■ マーキング Marking

AS-A450

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a b c

a	Maker/ID: AS=AnaSem. InC
b	Product Version/A: A Version
c	Production Week&Year: 450/50th week/2004

製造元: アナセムホールディングス株式会社  
 Maker: **AnaSemHoldings.inc**

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